

REMARKS

Claims 1-25 are pending in this application.

The following rejections are pending:

A) Claims 1, 3, 4, 6, 13, 15-17, 19, 20, 22, 23 and 25 are rejected under 37 CFR § 102(b) as being anticipated by Brust et al (US 6,100,019); and

B) Claims 7 and 9 are rejected under 35 USC § 103(a) as being unpatentable over Brust et al. in view of Antoniades et al. (US 5,250,403).

Applicants respectfully traverse each of the rejections.

The silver halide emulsion recited in claim 1 has the characteristic features of:

- (a) variation coefficient of equivalent-circle diameter (COV of ECD) of 30% or less, and
- (b) 70% or more of the total projected area of the silver halide grains meet:
 - (i) AgBrClI tabular grain having (111) faces as main planes,
 - (ii) Epitaxial portion junctioned to at least one apex portion, and
 - (iii) At least one dislocation line in an epitaxial portion.

It is clear from a careful reading of Brust et al. and Antoniades et al., that these references fail to teach or fairly suggest item (a) and item (b)(iii) mentioned above.

Item (a):

With respect to item (a), the Examiner cites Brust et al. for teaching an average grain ECD 84%, 72% and 75% in the exemplified

embodiments. The Examiner finds that these average grain ECD values overlap with the inventive COV of ECD of 30% or less. In so doing, it appears that the Examiner is calculating the COV of ECD by the following formula:

$$100 - \text{average grain ECD} = \text{COV of ECD}.$$

In other words, the Examiner is taking the position that the COV of ECD of Example C, having an average ECD of 84% is 16%.

Applicants respectfully submit that the Examiner's calculation for COV of ECD is incorrect. The COV of ECD is a measure of distribution, and is not derivable from average value in the manner asserted by the Examiner.

Brust et al. merely describe, e.g., Example C, that "[t]he resulting silver bromide (111) tabular emulsion had an average grain ECD of 4.15 μm " and "[a] total 84% of the tabular grain population exhibit high chloride epitaxy on 4 or more of the grain corners." That is, Brust et al. merely describe the average grain ECD, but **not** the distribution thereof as presently claimed.

In the present invention, the COV of ECD is used as one measure of monodispersibility, and the COV of ECD is defined in the specification as follows:

the variation coefficient of equivalent-circle diameters is the value obtained by dividing the standard deviation of the distribution of the equivalent-circle diameters of individual silver halide grains by their average equivalent-circle diameter. If the monodispersibility worsens,

epitaxial deposition becomes nonuniform between grains. This makes the preparation of an epitaxial emulsion of the present invention difficult. (See page 10, lines 7-13.)

Accordingly, COV of ECD is obtained using average ECD, but not in the manner as appears to be used by the Examiner.

Further, Brust et al. merely disclose that the grains in a ratio of 84% have high chloride epitaxy on 4 of the grain corners, but Brust et al. fail to teach that the ECD thereof is in a specific range (for example 4.15 μm of ECD).

Item (b) (iii):

In addition, Applicants have argued in the June 29, 2004 Amendment that neither Brust et al. nor Antoniadis et al. teach item (b) (iii), wherein 70% or more of the total projected area of the silver halide grains have at least one dislocation line in an epitaxial portion. As noted in the June 29, 2004 Amendment (beginning at the paragraph bridging pages 3-4), Example C of Brust et al. shows that the largest ratio is 60% of the grains having one or more dislocation lines of the epitaxial junction, which is lower than 70% recited in (b) (iii). The Examiner appears to have ignored this argument and has not responded directly thereto in her comments. Applicants respectfully request that the Examiner clarifies how Brust et al., either taken alone or in combination

with Antoniades et al., teach or fairly suggest this feature of item (b)(iii).

In fact, Antoniades et al. teach away from item (b) (iii). The only description in Antoniades et al. of dislocation is at column 7, lines 16-21, which states:

One of the discoveries that has contributed to the present invention is that tabular grain emulsion uniformity is enhanced by precipitating in one reaction vessel silver bromide grain nuclei that are crystallographically regular (i.e., internally free of defects such as twin planes or screw dislocations)

This passage, in effect, teaches away from the instant invention because it teaches away from the use of dislocation lines for the preparation of a uniform emulsion, as recited in item (b)(iii) as presently claimed.

Additional Patentable Distinctions:

Finally, Antoniades et al. also fail to disclose items b(i) and b(ii). The silver halide grain of Antoniades et al. is AgBrI (column 4, line 12 and claim 1). Moreover, there is no disclosure in Antoniades et al. about epitaxial or epitaxial portions. Thus, one of ordinary skill in the art would never combine the teachings of Antoniades et al. and Brust et al.

A reference which leads one of ordinary skill in the art away from the claimed invention cannot render it unpatentably obvious. *Dow Chem. Co. v. American Cyanamid Co.* 816 F2d 617, (CAFC 1987).

In determining the scope and content of the prior art, and determining whether the prior art suggested the claimed invention, the references "must be read as a whole and consideration must be given where the references diverge and teach away from the claimed invention." *Akzo N.V. v. United States Int'l Trade Comm'n*, 1 USPQ2d 1241, 1246 (Fed. Cir. 1986); *In re Fine*, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988). Known disadvantages in old devices which would naturally discourage the search for new inventions may be taken into account in determining obviousness. *United States v. Adams*, 383, U.S. 39, 52 (1966).

Accordingly, the motivation for combining Brust et al. and Antoniades et al. is lacking. According to MPEP §2141, when applying 35 USC §103(a), the references must be considered as a whole and must suggest the **desirability** and thus the obviousness of making the combination. In other words, Applicants assert that the Examiner has failed to properly assert the motivation prong for a proper rejection under 35 USC §103(a).

In addition, as the MPEP directs, all the claim limitations must be taught or suggested by the prior art to establish a *prima facie* case of anticipation or obviousness. See MPEP §§ 2131 and 2143.03. It is clear from a careful reading of Brust et al. and Antoniades et al., that a *prima facie* case of anticipation over Brust et al. or obviousness over Brust et al. and Antoniades et al., does not exist, since these references

fail to teach or fairly suggest item (a) and item (b)(iii) mentioned above. As such, withdrawal of rejections A) and B) is respectfully requested.

Unexpected Results:

Moreover, even if a proper *prima facie* case of obviousness were presented using the combination of Brust et al. and Antoniades et al. (which Applicants do not concede), the present written description discloses the advantageous features that can be achieved by practicing the instantly claimed invention. In particular, the instant invention has good storagability and processability, which is attained by using the grains meeting item (b) (iii). See, in particular, Example 2, Table 5 (on page 117 of the written description) and Table 6 (page 120), which show storagability. Also please note Example 4, in which Emulsions a(1) to a(3) (please see page 163, line 26 to page 164, line 1 of the instant written description) are used (see Table 10 on page 183), which show enhanced processability. The advantages described in Antoniades '403 are related to sensitivity and image structure (e.g., granularity and sharpness), and thus, good storagability and development dependency are features that were not desired (and are thus unexpected) from the disclosures of Antoniades et al. and Brust et al.

Finally, Antoniades '403 also fails to disclose items b(i) and b(ii). The silver halide grain of Antoniades et al. is AgBrI (column 4, line 12 and claim 1). Moreover, there is no disclosure in Antoniades et al. about epitaxial or epitaxial portions. Thus, one of ordinary skill in the art would never combine the teachings of Antoniades et al. and Brust et al. For the reasons discussed above, neither Antoniades et al. nor Brust et al. can render obvious the instant invention, used individually or together. Accordingly, the rejections are inapposite. Withdrawal of the rejections is warranted and respectfully requested.

Conclusion

With the above remarks, Applicants believe that the claims, as they now stand, define patentable subject matter such that passage of the instant invention to allowance is warranted. A Notice to that effect is earnestly solicited.

Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a three (3) month extension of time for filing a response in connection with the present application. The required fee of \$1020.00 is being filed concurrently with the Notice of Appeal.

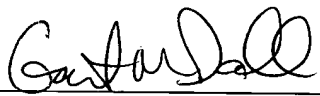
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact **Garth M. Dahlen, Ph.D., Esq.** (Reg. No. 43,575)

at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s)